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THE PHYSICAL CARE OF CHILDREN

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The physical care of children has developed from the academic subject of school hygiene taught by pedagogues, with inaccurate knowledge and weak force, into several well-developed specialized lines of work, each an active force. Chief among these are the medical inspection of school children, the provision of playgrounds and free medical treatment, and the enactment of laws calculated to prevent, or at least decrease, child labor.

Taking up these subjects seriatim, and considering first the medical inspection of children in the schools, we find its reason for existence in the fact that the eight years of school life offer the only opportunity to the community to examine all its members. Such inspection has a double interest, that of the physical health of the community and that of the intelligence of the community, since doctors have come to realize that physical health is a strong factor for or against mental development.

The medical inspection of school children was first instituted in America, on a large scale, by the health department of the city of New York, which, in 1905, appointed medical inspectors to examine all of the school children of the city. I am glad to say that the first honor of medical inspection apparently belongs to my own city of Philadelphia, whose board of education many years ago, at the instance of Dr. Samuel D. Risley, commissioned him and three other physicians to test the vision of the children in the schools. Unfortunately, however, a certain opposition developed on the part of the parents, and for want of vigorous championship the work was allowed to drop. Since that time, in various cities, directors of school inspection have succeeded in having the work done upon a small scale; but the comprehensive system instituted in New York, which has already been mentioned, marks the first noteworthy and permanent step along this line.

That there is reason for medical inspection is easily shown by the numerous statistics compiled by the examiners of children; the figures here given may be accepted without hesitancy by the reader. Eye strain exists in about twenty-five to thirty per cent. of all school children, meaning by eye strain, all cases of defective vision from refractive error, and those cases of normal vision in which such vision is accomplished only by labored effort and headaches and tiring over the eyes. The simple test of medical inspection procured detailed statements of hyperopia, myopia, astigmatism and muscular insufficiency.

Diseases of the nose and throat exist numerously in young children, particularly those of the poorer classes, whose unhygienic home surroundings act as predisposing causes. Of these defects, nasal obstruction (mostly by adenoids) exist in from six to twenty-five per cent. of the school children, according to the age and social condition, younger children and poorer children being those most affected. The large tonsils, which are frequently associated with adenoids, and which really signify chronic inflammation, as well as enlargement, are found in from three to ten per cent. of school children, the number depending upon the factors just noted in connection with nasal obstruction. Defective hearing exists, in one ear at least, in about five per cent. of all children; such prevalence, however, being quite variable at different times, owing to the fact that the catarrh, which usually causes deafness, is more prevalent at some seasons than others.

Decayed teeth are very numerous in young children, particularly those of the poor, who do not know a tooth brush and whose nutrition is low; and over two-thirds of the children between the ages of seven and nine years possess such defects. Defects of the tenth year, or temporary teeth, are less, and children for a brief period present, but little dental decay until the thirteenth or fourteenth year is reached, when permanent teeth begin to break down, also. Among the older grammar children, twenty-five or thirty per cent. show carious teeth.

Among the orthopædic defects, stoop shoulders and lateral curvature of the spine command attention, because of their great frequency. Stoop shoulders, with its associated flat chest, are usually due to defective vision or defective hearing, which causes

the child to lean forward to see and hear; to nasal obstruction and poor nutrition, which rob the child of vitality and cause it to slouch as it sits; and to ill-fitting school desks and seats. Lateral curvature is an extremely common defect, but usually exists in but small degree.

Nervous disorders include, principally, chorea, which is the most manifest evidence of increased sensitiveness, quick fatigue and poor emotional control, which are the fundamental conditions underlying an exhausted nervous system. Poor nutrition exists largely, but not according to the statements of the investigator. Many statements, which have appeared in magazines and newspapers to the effect that thousands of children are in a condition of semi-starvation, are doubtless exaggerations, but no one who has been in actual contact with the children of the poor foreign districts of a great city fails to recognize that, regardless of the actual weight and height of such children, they show a decided lack of vigor and flabbiness of tissue, due to the use of improper food.

Correction of these defects just enumerated has proceeded so far by reason of the efforts of medical inspectors, appointed either by the health or educational authorities, with the assistance, in many cases, of social visitors (usually nurses), and the valuable assistance of free medical and dental treatment. The physical education of children, and the institution of playgrounds and recreation centers, may also be considered as important aids in this work, but so far they have had but little direct relation with the work of medical inspection.

Arguments bearing upon the proper appointive power, salary, hours of service, tenure of office, and special training of medical inspectors are exceedingly interesting and important to those directly concerned in the carrying on of this work, but are too administrative in character to receive attention here.

The object of medical inspection is two-fold. First, the prevention of contagious diseases; and, second, the correction of existing physical defects. The latter, it will be noted, partakes at the same time of the character of corrective and preventive medicine, since the early correction of a physical defect signifies, in many cases, the prevention of a secondary one.

It is interesting to note that the medical inspection of the

New York school children was originally planned by Doctor Darlington, as a measure for the saving of school time for those children who are excluded from school by reason of minor contagious diseases; the reasoning being that the exclusion of a child for uncleanness, pediculosis, ring worm, etc., is necessary; but, if carelessly done by the authorities, is a source of long absence from school. The realization that the correction of physical defects is much more important than the cure of minor parasitic diseases came to the authorities subsequent to the actual introduction of medical inspection.

The actual work of medical inspection is conducted by assigning to each inspector, in the case of the schools of a large city at least, a certain number of schools. Over these schools he exercises jurisdiction as health officer, occasionally excluding children suffering from contagious diseases; daily examining, at the request of teachers, children suspected by the latter of various physical defects; and, finally, examining each child in his group of schools in a systematic manner, so that defects of the eye, ear, nose, throat, teeth, skeleton, skin and nervous system are found. The number of children assigned to one inspector may roughly be set down as from four to five thousand. The children in the slum districts need more medical inspectors than those in the better residence districts. It is the custom, in Philadelphia at least, for the inspector to visit all of his schools every morning, stay a short time at each to examine any incidental cases brought to his attention, and, at the last school visited, to systematically examine twenty children. By this means, in a school year of two hundred days, four thousand children are systematically examined. It may be noted that this is a maximum figure, since the month of September is largely consumed in examining vaccination marks of new children, and the month of June naturally marks the cessation of health activities, because of approaching examinations.

The method of examination pursued by a medical inspector in a systematic examination of children is worth noting. The child is first asked to read the letters on the test card for vision, and his acuity of vision, as well as the frequent existence of headache and eye-tire is noted. If the child shows a squint, or if he wears eyeglasses, these facts are noted also. The examination

of the nose and throat and of the freedom in nose respiration is next made, together with an inspection of the teeth. Following this, the heart is tested, usually by means of a watch in the hands of the examiner, the child's eyes being in the meanwhile closed. Poor nutrition is detected by general inspection, and the child's manner of answering and general demeanor suffices, by necessity, for the detection of a run-down nervous system.

The clerical and administrative work following the examination of children consists in the recording of the defects found, and the institution of measures looking to their correction.

The matter of record keeping is extremely important, since the systematic and business-like conduct of any work undertaken on a large scale is vital. Medical inspection records are essentially of three kinds: The child's individual record, showing his physical condition; a list of the defective children in the school, together with the defects found; and a summary, or report, of the defects found and work done.

As to the child's individual record, it is essential that this record should accompany him throughout his school life, so that teacher, parent and inspector may be kept aware of his physical condition, and, in the event of sickness and poor scholarship, be apprised of the physical defect which so often has caused these troubles. It is unfortunate at the present time that our school authorities do not recognize the value of these records along the lines just mentioned. For it is certain that not one teacher in twenty has any idea, after medical inspection of her class, as to which children have been found defective and which have not. Possibly the day will come when teachers are compelled to be familiar with the physical condition of every child, and supervising principals will understand that "supervision" means the knowledge of the health and home environment of every backward or delinquent child, with a responsibility, for the endeavor at least, to correct such conditions.

The record cards should contain the record of physical examinations made yearly or biennially or triennially, as the case may be, and the record of each examination should carry with it, not only the defects found, but the date on which the parents were notified of the existence of the defect, and whether or not such defect was corrected by them. In this way, quick reference

can be had to the whole matter, and at the time of the second examination of the child the inspector knows at once, by reason of the record, whether the child has been found defective, and whether or not the parents are careful or neglectful.

The correction of physical defects found by the medical inspector has been, up to the present time, optional on the part of the parents, and it is worthy of note, therefore, that the official methods of correction are only those of persuasion. Possibly the day will come when cases of flagrant parental neglect, such as the failure to properly feed poorly nourished children, to provide eyeglasses for a squinting child, or procure medical treatment for a bad case of adenoids, with its train of secondary effects, will be the basis of prosecution by the legal officers of the community. Certain it is that a puddle in the back alley, which may be proceeded against as a nuisance, or the keeping of chickens in a cellar, which may be the basis of complaint by the Society for Prevention of Cruelty to Animals, do not compare in their injurious effects with the presence of a serious defect in a child, which daily lowers its vitality, dulls its vision, or permanently blemishes its personal appearance.

The method of correction has principally been by means of parents' notices, which are most efficient when specific in character. These special notices for eye-strain, nasal obstruction, decayed teeth and stoop shoulders produce results because of the warning information attached, when a simple blank form, merely specifying the defect, fails of its purpose. However, just as personal salesmanship produces business where impersonal advertisements fail, so the home visitor, usually a school nurse, secures the correction of many defects which are otherwise ignored by the parent. In this connection it is worth while noting that, without a nurse, the proportion of defects corrected usually is from five to thirty per cent, according to the zeal and intelligence of the inspector; while, with the aid of a home visitor, medical inspection succeeds in the correction of about sixty per cent. of the defects found. It must be acknowledged that nurses have been employed up to the present time only in the poorer districts of our cities, where docile foreign mothers and the nearby existence of free medical dispensaries have made the work productive of large results. Exactly what the success of the home

visitor would be among American school children of the better class cannot be determined in the absence of trial, but naturally the results obtained would be greater than those obtained simply by notifications.

Briefly in this connection may be mentioned several aids to the work of medical inspection, which have developed as their usefulness has become apparent in the light of experience: Free dental dispensaries, conducted by a municipality; free, or almost free, lunches in the schools of the poorer sections; the services of specialists in eye, skin and mental diseases; and the institution of a specific corrective exercise by the instructors in physical education for those children found needing them by the medical inspectors. Realization by the authorities in the school system that all children differ in personality and capability has resulted in the institution of sub-classes for the mentally deficient, the poorly nourished, the tuberculosis, the blind, the crippled and the deaf; while the municipal government does and has shown its appreciation of the necessity of fresh air and free outdoor play for school children, by providing playgrounds and recreation centers, the latter often in the school yards.

By the combined effect of these agents, it is hoped that the physical standard of the race may be appreciably raised, and the corresponding increase in average intelligence will result in a better standard of citizenship.